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ABSTRACT

Since 1988, Western Wisconsin Technical College (WWTC) has taken a leadership role in integrating institutional effectiveness activities within the Wisconsin Technical College System (WTCS). In December 1992, the WTCS Administrators Association and the WTCS State Board agreed to work with the University of Michigan's Community College Consortium to develop an institutional effectiveness model that would provide a valid and consistent means of evaluating the performance of each college and the system as a whole. The statewide effectiveness modeling project sought to identify core indicators that could be used by WTCS colleges to respond to accountability initiatives, accreditation requirements, federal reporting requirements, and quality management initiatives. In its adaptation of the statewide model, WWTC took the following steps: (1) representatives were selected to attend a state conference on institutional effectiveness; (2) an institutional effectiveness committee was formed; (3) the committee adapted the WTCS model by determining whether each core indicator in the model applied to the mission of WWTC and whether it could be measured using the resources available at WWTC; and (4) measurable factors of institutional effectiveness were identified for each core indicator in the categories of student achievement and satisfaction; organizational quality, harmony, and efficiency; public perception and satisfaction; and employer satisfaction. While this model helps detail the WTCS's commitment to its mission and purpose, WWTC has found that the Deming Plan-Do-Study-Act cycle of improvement provides the methodology for continuous improvement. (KP)

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August 23, 1994

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Integrating a Statewide Effectiveness Model with Quality Improvement Methods at Western Wisconsin Technical College

Introduction

The College

Western Wisconsin Technical College (WWTC) is located in La Crosse, Wisconsin. The college serves approximately 7,500 credit students and 20,000 total students. The district is primarily rural with La Crosse being the major city. The eleven-county district contains approximately 220,000 residents. The college offers sixty programs in health occupations, business, industrial, agriculture, graphics and home economics fields. It is one of sixteen colleges in the Wisconsin Technical College System (WTCS).

The Philosophy

Most technical colleges are working on institutional effectiveness models and assessment plans. It is important that as these processes are put in place, they allow us to provide not only a record of past performance but also information for decision-making and improvement. Western Wisconsin Technical College is currently working on several activities in this area. They include:

A) Taking a leadership role to integrate institutional effectiveness activities within the Wisconsin Technical College System, as well as to integrate activities locally within the college among the different departments and divisions.

B) Focus on the development of information that can be used for internal decision-making and not primarily to satisfy outside agencies.

C) Encourage the involvement of the president, board of directors, administration, faculty and staff in the development and use of effectiveness measures.

D) Focus not only on changing the way data is collected, but on improving the interpretation and use of data within the college.

E) Making an effort to refine and improve existing data collection processes rather than create new processes or procedures unless absolutely required.

The Initiative

In 1988, Western Wisconsin Technical College made a commitment to implement quality management and a quality improvement process at the college. This new management philosophy is based on the works of Edwards Deming and focuses on systems development and systems thinking. It includes greater emphasis on communication and participation by faculty and staff in college-wide decision-making. This emphasis on quality improvement provided the basis for a very successful accreditation visit in 1991 by the North Central Association of Colleges and Schools

(NCA). The college was applauded for its successful approach to identifying and measuring institutional effectiveness indicators. In spite of our early success in this area, there was a realization that new mandates from NCA relating to identifying and measuring institutional effectiveness and student academic achievement would challenge the college to more closely examine these issues. It also led the college to take a leadership position in developing an institutional effectiveness model for the State of Wisconsin. This model was developed for use by all sixteen colleges in the Wisconsin Technical College System.

Development of the Wisconsin Technical College System Model

In December of 1992, the WTCS Administrators Association and the WTCS State B[illegible] unanimously agreed to work with the Community College Consortium at the Univ[illegible]sity of Michigan to develop an institutional effectiveness model specifically designed for the Wisconsin Technical Colleges. The main objective of this project was to develop a comprehensive effectiveness model for adaptation within the context of the individual colleges.

The initiative was not intended to supplant the work that many of the colleges already have in place to measure their effectiveness, but rather to give the Wisconsin Technical College System some valid and consistent means of evaluating the performance of each individual college and the performance of the System. It was agreed, therefore, that the model to be developed would take into account existing efforts and would be used by the individual colleges in ways deemed most appropriate by each college. It was also agreed that the project would be undertaken simultaneously with other System-wide projects, such as the WTCS visioning project, to reaffirm the WTCS mission and goals. While this and other projects were undertaken independently, a great deal of cross-checking and communication took place to ensure that the final products would be complementary and consistent.

In essence, the effectiveness modeling project is a System-wide effort to identify core indicators that can be used locally by WTCS Colleges to respond to accountability initiatives, NCA recommendations, federal reporting requirements, quality management initiatives, and so forth. The Wisconsin Technical College System, in taking this proactive step, is one of the first state-wide systems in the country to voluntarily embark on this type of initiative.

WTCS Project Objectives:

The WTCS effectiveness modeling project included eight specific objectives. Each of these objectives is described below:

1. Examine existing models and systems (procedures, policies, and practices) for gathering information related to institutional effectiveness in the technical colleges. The project was designed to answer four questions:

a. What effectiveness models or practices are currently used in the technical colleges?
b. What criteria do these models emphasize and for what purpose are they used?
c. What effectiveness indicators are currently used in the technical colleges that require routine data collection?
d. What effectiveness indicators are under consideration, require further consideration, or must be developed?

2. Identify the types of published information (research reports, system data fields, accreditation reports, etc.) routinely available in the System Office and individual colleges that apply to the assessment of effectiveness.

3. Appoint a task force comprised of key System Office staff and College staff (presidents, chief academic officers, chief student personnel officers, finance officers, faculty, support services personnel, etc.) holding specific interests that need to be addressed in the design and implementation of an effectiveness model. This task force will meet regularly to guide the project and to review the activities and findings of the consultants.

4. Develop a matrix of key groups (on- and off-campus) holding specific interests in effectiveness. Employ a variety of information gathering techniques (document review, surveys, focus group meetings, and individual interviews) to determine: a) key institutional characteristics or performance outcomes which define effectiveness for each group and b) indicators and data gathering methods recommended for measuring effectiveness.

5. Develop and test a preliminary effectiveness model based on indicators identified by different groups (via the activities in Objective 4) and distribute to representative groups in the technical colleges for review and revision.

6. Revise the preliminary effectiveness model using feedback from different groups.

7. Distribute the approved effectiveness model to representative groups throughout the system.

8. Conduct a series of workshops throughout the state to: a) familiarize faculty and staff with the effectiveness model and b) provide training in methods and procedures for data collection to implement the model.

Process and Procedures

A task force, formed in the initial stages of the project, provided a natural communication link to the various subgroups of the Administrators Association. The task force met six times between January and August 1993 to develop a system-wide definition for institutional effectiveness, to provide input and direction for project activities, and to review the consultants' findings. In addition, task force members

arranged for, and in many cases were in attendance at, meetings held with different groups in the technical colleges.

One of the guiding principles established by the task force in the early states of the project was that externally dictated indicators of effectiveness (e.g. NCA accreditation guidelines, federal and state legislation, etc.) while very important, should not be the starting point for identifying effectiveness indicators that were critical for the Wisconsin Technical Colleges. "Going directly to the well" and getting input from representative groups about what is important in effectiveness seemed to be the right place to start. The first step, therefore, was to develop a working definition of effectiveness that could be used by the colleges and to solicit input from focus groups representing a wide variety of perspectives. Following a series of ten focus group meetings involving administrators, faculty, students, support staff, and board members, the consultants compiled an inventory of over 120 potential effectiveness indicators that was then circulated among representatives of functional areas, the Administrators Association, the District Boards Association, and student groups.

Over 120 individuals from these groups ranked the importance of the indicators and identified the ten most important. From this feedback, the effectiveness indicators were rank ordered. Included in the process were:

- district directors/presidents
- academic officers
- student services officers
- financial officers
- instructors
- students
- planning/research/evaluation officers
- economic development officers
- technical reporting specialists
- system administrators
- support staff
- information system directors
- marketing officers
- campus deans
- trustees

As the next step in the process, the consultants cross-checked the top-ranked indicators (i.e. "core indicators") against three "information banks" to ensure comprehensiveness and consistency: 1) the WTCS mission statement and effectiveness definition, 2) NCA student achievement guidelines, and 3) federal legislation.

Western Wisconsin Technical College Progression Toward Institutional Effectiveness

WWTC Selects Representatives to Attend State Conference

College representatives to attend a state conference on institutional effectiveness were chosen on the basis of their expressed interest in the pursuit of institutional effectiveness and their past record of achievement and service to the college. The membership of the group was also designed to include representatives from several of the major units which would later be responsible for the implementation of institutional effectiveness strategies. The representatives included faculty members from the Human Services division, the Business Education division, the General Education division, the Counseling and Admissions Supervisor from Student Services, the WWTC North Central Association Coordinator, the Director of Planning, Evaluation, and Research, and the Vice President of Instruction.

WWTC Forms Institutional Effectiveness Committee

Through a series of discussions following the state conference, the representatives decided to create a formal institutional effectiveness committee for the purpose of creating and implementing a model at WWTC. In addition to the state conference representatives, the committee was enlarged to include faculty from the General Education division, a clerical representative, the Curriculum Specialist, the Quality Improvement Coordinator, an instructional support representative, and the faculty member who served on the WTCS Institutional Effectiveness Committee.

While the size of the committee was large, it was determined that input from each of the major units on campus was needed to create a model which would meet the needs of the college. The charge of the committee was to identify measures, develop a model, and formulate specific methods by which institutional effectiveness could be and would be measured. The committee had authority to determine how the strategies would be implemented. Therefore, input from affected groups was an integral part of the development process.

Institutional Effectiveness Committee Adapts State Model

The WWTC Institutional Effectiveness Committee decided very early in the process to review and adopt, with modifications, the WTCS model. The adaptation of the state model to meet the needs of WWTC required a systematic approach which included several stages. The committee first reviewed WWTC's mission and vision statements to determine the main goals of the college. Next, the committee revisited WWTC's long-range strategic plans to determine if these plans were compatible with the mission and vision statements. The strategic plans were also evaluated to formulate measures of WWTC's progress toward specific objectives.

Following the review process, the committee began to identify the core indicators of institutional effectiveness. Although the task initially seemed relatively easy, of primary concern to the committee were two questions: "Does the indicator apply to the mission of WWTC?" and "Can the indicator be measured using the resources

available at WWTC?" For each core indicator, an affirmative answer was required for both questions. As a result, some of the indicators developed at the state level were found to be inappropriate for the needs of WWTC. Others could be adequately measured to report college efforts.

Core Indicators of Institutional Effectiveness

The core indicators of institutional effectiveness at WWTC fall into four categories: student achievement and satisfaction; organization quality, harmony, and efficiency; public perception and satisfaction; and employer satisfaction. The relationship of each of the core indicators to the others and to the larger concept of institutional effectiveness is shown by Figure 1. For each of the core indicators, the committee identified measurable factors of institutional effectiveness. The relationship of the specific factors to the core indicator, student achievement and satisfaction, is shown in Figure 2. While there may be other factors related to student achievement and satisfaction, the committee chose only those factors which could be measured with the resources available at WWTC. In addition, the measures of institutional effectiveness were summative evaluations, most of which could be expressed in quantifiable terms rather than through anecdotal statements.

During the discussions about the core indicators and specific factors of institutional effectiveness, it was revealed that much of the data needed was already being collected on a regular basis. WWTC reports course completion rates, grades, graduation rates, scores on licensure exams, employment placement rates, etc. In addition, WWTC uses questionnaires and interviews to measure student achievement of educational goals, student and employer satisfaction with programs, and student satisfaction with services. Finally, factors such as the placement of new students at appropriate educational levels can be inferred from the measurement of other related

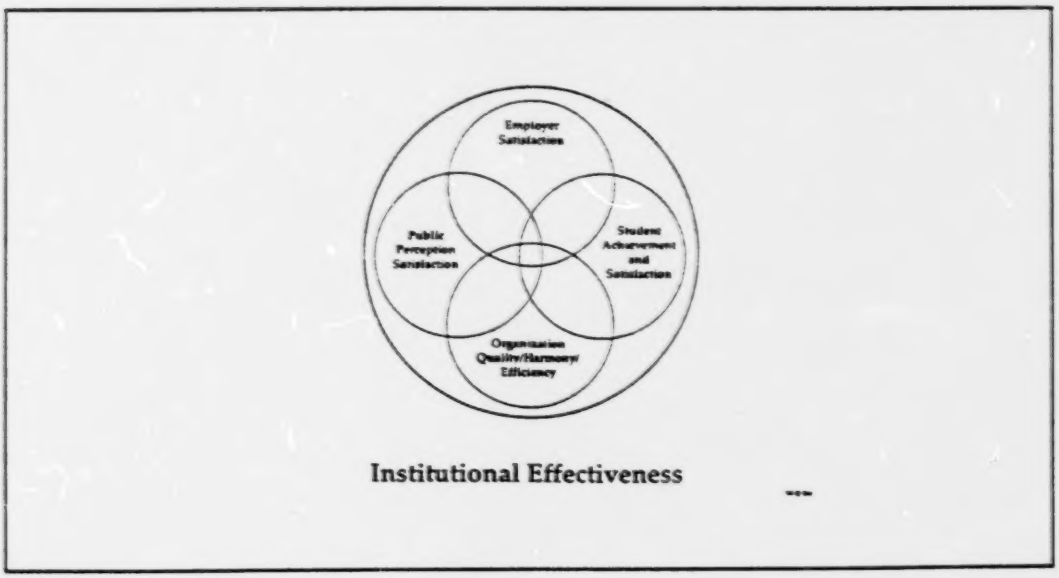

Figure 1

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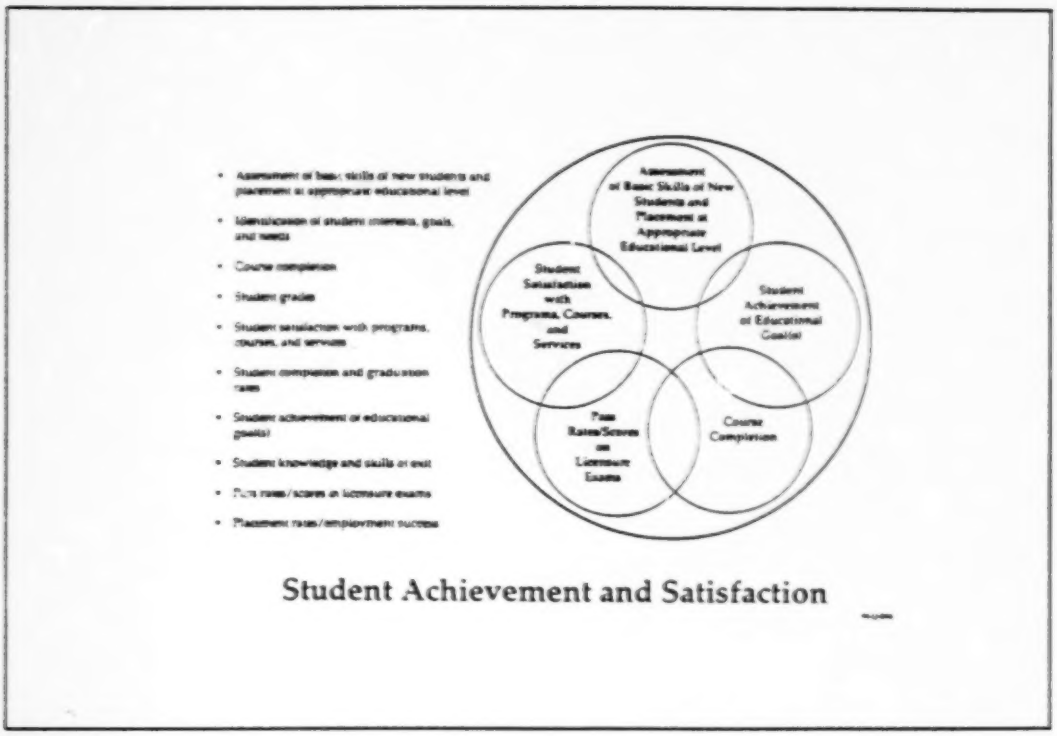
Assessment of Basic Skills of New Students and Placement at Appropriate Educational Level
Identification of student interests, goals, and needs
Course completion
Student grades
Student satisfaction with programs, courses, and services
Student completion and graduation rates
Student achievement of educational goal(s)
Student knowledge and skills at exit
Pass rates/scores on licensure exams
Placement rates/employment success
Assessment of Basic Skills of New Students and Placement at Appropriate Educational Level
Student Satisfaction with Programs, Courses, and Services
Student Achievement of Educational Goal(s)
Pass Rates/Scores on Licensure Exams
Course Completion
Student Achievement and Satisfaction

Figure 2

factors. The institutional effectiveness committee decided to avoid collecting and disseminating more data, and to eliminate the collection of useless data. The committee chose instead to focus its efforts on using existing data to provide information for use in the pursuit of continuous quality improvement.

Continuous Improvement

Western Wisconsin Technical College began its journey implementing continuous improvement in the late 1980's. Institutional effectiveness and continuous improvement are complementary. In essence, institutional effectiveness details the organization's commitment to its mission or purpose and continuous improvement provides the methodology. Dr. W. Edwards Deming taught that goals without measures are often arbitrary objectives that may be unattainable. Such objectives can suboptimize the organization and often have no relation to the organization's mission. Institutional effectiveness provides an organization with the plan to be effective and move towards attaining its mission. Inherent in the plan are the measures to insure that the plan is not only being implemented, but is the right plan.

The Deming Cycle for Improvement, often referred to as Plan-Do-Study-Act (PDSA), provides a framework for process improvement. In the **Plan** stage, a change or plan for improvement is initiated. In the **Do** portion of the process the plan is carried out on a small scale. During the **Study** stage, the results are analyzed. In the

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Act portion of the process, the change is adopted, abandoned, or the PDSA stage is repeated.

WWTC's Institutional Effectiveness Committee adapted PDSA to provide analysis for each of the core indicators. A worksheet was developed (Figure 3) that aligned the Plan stage with each Core Indicator, the Do stage with the question "How is it Measured?", the Study stage with the question "How is it Used?" and the Act stage with Process Improvement. For example, the core indicator (Plan) "identify customer needs" would be measured (Do) by special surveys, needs assessments and advisory committees. It would be used (Study) for feedback to units for decision making, and the process improvement (Act) would be to organize requests around college needs. Applying the PDSA cycle provides a framework for continuous process improvement within the Institutional Effectiveness Model.

Plan	Do	Study	Act
Core indicator	How is it measured?	How is it used?	Process Improvement
- Identify customer needs	- Special surveys - Needs assessment - Advisory Committees	- Feedback to units for decision making	- Organize requests around College needs

Figure 3

Future Efforts

The committee developed a timeline of activities that will be implemented during the 1994-95 academic year (Figure 4). This timeline will bring the college to the completion of the initial phase of the project.

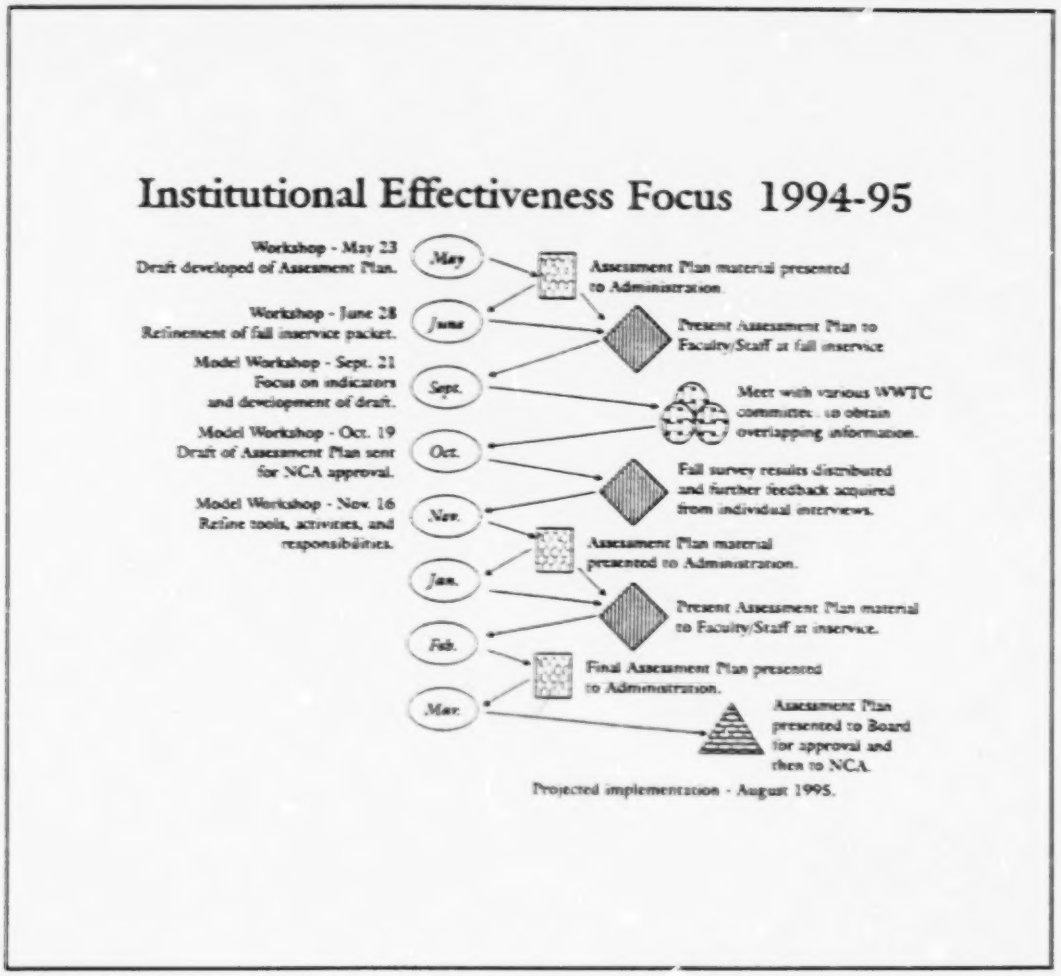
Institutional Effectiveness Focus 1994-95
Workshop - May 23
Draft developed of Assesment Plan.
May
Assesment Plan material presented to Administration.
Workshop - June 28
Refinement of fall inservice packet.
June
Present Assesment Plan to Faculty/Staff at fall inservice
Model Workshop - Sept. 21
Focus on indicators and development of draft.
Sept.
Meet with various WWTC committee . to obtain overlapping information.
Model Workshop - Oct. 19
Draft of Assesment Plan sent for NCA approval.
Oct.
Fall survey results distributed and further feedback acquired from individual interviews.
Model Workshop - Nov. 16
Refine tools, activities, and responsibilities.
Nov.
Assesment Plan material presented to Administration.
Jan.
Present Assesment Plan material to Faculty/Staff at inservice.
Feb.
Final Assesment Plan presented to Administration.
Mar.
Assesment Plan presented to Board for approval and then to NCA.
Projected implementation - August 1995.

Figure 4

References

Wisconsin Technical College System Effectiveness Model by Richard L. Alfred, Center for the Study of Higher and Postsecondary Education, University of Michigan, and Patricia Carter, Community College Consortium, University of Michigan. November 1993.

WWTC's North Central Association Self-Study, October 1991, indicated in the summary for Chapter Four: "Evaluative Criterion Three on Student Achievement" that

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"In the future, the College will continue to assess student achievement by developing a comprehensive assessment plan." Therefore, the Institutional Effectiveness committee selected the core indicators dealing with student achievement as its high priority goal for demonstrating to NCA that WWTC is indeed following through on this assignment in a timely manner.

Figures 1-3 graphics by Reva Heifetz, Quality Coordinator, Planning, Evaluation & Research Division, Western Wisconsin Technical College

Figure 4 graphics by Barbara Fischer, Graphics Faculty, Industrial Technologies Division, Western Wisconsin Technical College